

ILLUSTRATIONS
OF
Human Vivisection

"Gross abuses in any profession should not be hushed up, but should rather be made public as freely as possible, so as to rouse public opinion against them and thus render their repetition or spread impossible. . . . The whole medical profession must reprobate cruelties such as these perpetrated in the name of science."—BRITISH MEDICAL JOURNAL.

VIVISECTION REFORM SOCIETY
1906

VIVISECTION REFORM SOCIETY

has been incorporated as the exponent of the principle which demands, not the total abolition of a scientific method, but prevention of the abuses which pertain to it. Within certain limitations, and for certain definite objects, it regards such experimentation as legitimate and right. Carried on beyond these bounds, vivisection becomes monstrous and cruel, a menace to humanity, an injury to the cause of science.

The Society is utterly opposed to human vivisection as illustrated in this pamphlet, *no matter what may be the eminence of the men who practice and defend it.*

The vivisection of animals, carried on without legal regulation, sometimes constitutes a form of scientific torture, which, in the words of the late Dr. Henry J. Bigelow of Harvard Medical School, "is more terrible, by its refinement and the efforts to prolong it, than burning at the stake." We shall aim to make this cruelty impossible, except as a crime.

To suppress such abuses as are admitted to exist, and to effect this without interference with any form of research conducted under State supervision and guarded against abuse, is the object of the Society.

The VIVISECTION REFORM SOCIETY appeals, therefore, for encouragement and support to all who have at heart the honor and interest of scientific advancement and the prevention of injustice and cruelty.

The fee for annual membership is \$2.00; for life membership, \$25.00.

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PREFACE.

In the following pages are given a few illustrations of the great vice of modern science, known as HUMAN VIVISECTION. Much that could be brought forward is not included; for some of the worst cases of American experimentation are too loathsome for publication except for special circulation. Enough is given in these pages to afford any reader the means for judging the morality of this practice.

One distinction must be carefully noted.

The phrase HUMAN VIVISECTION must not be taken as having any reference to the experimental use by physicians of new methods or new remedies, with a view to the benefit of the patient. To such tests there can be no objection. But HUMAN VIVISECTION is something entirely different. It may be defined as *the practice of subjecting human beings, men, women and children, who are patients in public charitable institutions, hospitals or asylums, to experiments involving pain, distress, mutilation, disease or danger to life, for no object connected with their individual benefit, but for scientific purposes.*

The attention of the reader is called to the following points:

First. The instances of human vivisection here presented may be found recorded in medical books or journals printed in the English language, to which reference is made.

Second. No experiment is quoted in full; considerations of space forbid. Italics are ours.

Of what use, some will ask, is such a revelation of evil deeds?

It is necessary. Before any reform can be hoped for, there must be such exposure as shall, sooner or later, awaken an effective public condemnation.

Herein are delineated oppression of the weak, cruelty to the defenseless, injustice to the poor, violation of human rights. Are these of no account?

For reform, what is necessary?

First. Investigation; such careful inquiry by the general public as shall lead to recognition of the reality of the evil, and of the attitude of the medical profession.

Second. Investigation as to the relation existing between human vivisection, and the vivisection of animals as now carried on in this country.

Third. Such absolute condemnation of this hideous practice by the leading medical associations of the United States as shall stamp the human vivisector with ignominy and disrepute.

Fourth. Such state and national legislation as shall make the human vivisection-experiments herein delineated a crime against the commonwealth.

Are these unreasonable demands?

An expression of the opinion of every reader of this pamphlet is requested.

S. R. T.

ILLUSTRATIONS OF HUMAN VIVISECTION.

EXPERIMENTS WITH POISON.

In the study of poisons and their effects under different circumstances, a large number of experiments upon human beings have been made. Doubtless, in a few cases, such experiments have been made by enthusiastic scientists upon themselves, but this form of generous martyrdom is rare; and far more often the "material" has consisted of the poorer class of patients in public institutions. The superiority of human beings as material for scientific investigations of this kind is undoubted, and has long been recognized. A distinguished experimenter upon the lower animals, Dr. Horatio C. Wood of Philadelphia, once said very plainly that "no experiments on animals are absolutely satisfactory *unless confirmed upon man himself.*"¹ Equally clear in the recognition of the defects of animals as material in certain experiments is the statement made by Dr. W. W. Keen, Dr. S. Weir Mitchell and Dr. Geo. R. Morehouse in their report upon a phase of the subject which, at one time, occupied their attention. They assure us plainly that certain facts—"very curious facts," they are called—"could certainly not have been learned from any course of experiments *upon animals lower than man.*" This grouping of man with other vivisectionable animals may shock one at first, but science, as a rule, has no regard for sentimental distinctions.

Regarding the inferiority of experiments with poisons made upon animals, and the improper and inaccurate conclusions so frequently deduced therefrom, Dr. Keen and his associates are outspoken. For example, they tell us:

"It is not unfit that we should criticize the loose way in which therapeutic inferences have been drawn from experiments upon animals, where of necessity poisonous doses have been employed, and their effects studied. . . . Even when these drugs are given *in poisonous doses* to animals, it does not follow that the resultant symptoms will, either in degree or in kind, correspond accurately to those *which occur under like circumstances in man.*"

In support of this conclusion, Dr. Keen and his associates give very striking illustrations. One of them—Dr. Weir Mitchell—proved that to kill a snapping-turtle with a certain poison it requires no less than fourteen times the dose that will kill a rabbit, the difference in weight being taken into account. "We ourselves have seen a dog recover after the subcuticular injection of twenty-five grains of atropia"—a dose far greater than is sufficient to kill a man. Concerning a certain conclusion from various experiments, Dr. Keen and associates make what we must regard as a very noteworthy criticism when they tell us that although the positive evidence in favor of a certain conclusion has gained largely, yet

"it has been shown repeatedly that the negative evidence derived from experiments on animals *is not to be trusted, although to it Dr. Brown-Séquard has given the sanction of his great authority.*"²

¹ The American Journal of the Medical Sciences, Philadelphia, published by Henry C. Lea, Vol. 85 (N. S., 59), No. CXVII (New Series), p. 52.

² Same, published by Blanchard & Lea, New Series, Vol. 50, No. XCIX (New Series), p. 69.

³ Same, p. 70.

When we remember that Brown-Séquard was perhaps the most ruthless experimenter upon animals that ever lived, a scientist whose renown as a vivisector belonged to two continents, this impeachment of his conclusions based upon animal experimentation is certainly significant.

It by no means follows that these writers regard animal experimentation as useless in the study of poisons. It has, they tell us, a certain value. But to appreciate properly a poisonous agent, its effects must be studied upon a wide range of created things, beginning perhaps in vegetables and ending in human beings. But let us state this conclusion in their own vivid and vigorous language:

"It would be easy to extend these examples, and to show, not that we should cease to use animals *for the study of poisons*, but that in order to appreciate properly any toxic [poisonous] agent, we must follow its effects through a wide range of created existence *from vegetable to man*, and that its therapeutic uses are to be learned only from its influence upon the being to whom finally it is to be of medicinal value."³

Do we read this aright? To study properly any poison, must we invariably "*follow its effects . . . from vegetable to man*"? Up to man? Science "*must*" do this? Let us see whither this peculiar doctrine appears to have led certain scientific enthusiasts, when unrestrained by other considerations.

One of the boldest investigators in this direction was Dr. Sydney Ringer of England. As physician to the University College Hospital of London, he enjoyed unusual opportunities for testing various poisons and poisonous substances upon the charity patients who had confided themselves to his care. To his credit it must be said that he made no secret of his experimentation; he told his medical brethren exactly what he was doing; many of his experiments upon his simple-minded patients are related in his own work on Therapeutics—published in this country by William Wood & Co. of New York City.

Poisoning with Salicine. Of his investigations with this substance, Dr. Ringer writes at considerable length, and with noteworthy frankness:

"In conjunction with Mr. Bury, I have made some investigations concerning the action of salicine on the human body, *using healthy children for our experiments*, to whom we gave doses sufficient to produce toxic [poisonous] symptoms. We tested the effects of salicine in three sets of experiments, *on three healthy lads*. To the two first, we gave large doses and produced decided symptoms. . . .

Under toxic, but not dangerous doses, the headache is often very severe, so that the patient buries his head in the pillow. There may be very marked muscular weakness and tremor. . . . There are often slight spasmodic twitchings when a limb is raised. . . . The respiration is hurried, sometimes deepened, sometimes sighing and shallow and almost panting, . . . but the patient does not complain of any difficulty of breathing. . . .

Our first set of experiments was made on a lad *aged ten*. . . During the investigation he was kept in bed, but was allowed to sit up in it. He was admitted with belladonna poisoning, but our observations were not commenced *till some days after his complete recovery*."⁴

This patient was therefore experimented on after his complete recovery, and when he should have been discharged from the hospital and sent home as *cured*. Among the effects recorded during this experiment are "severe frontal headache, . . . so severe that the lad shut his eyes and buried his head in his

³. Same, p. 70.

⁴. A Handbook of Therapeutics, by Sydney Ringer, M. D., 8th Ed. New York. Published by William Wood & Co. Pp. 584, 585, 586, 588.

arm"—"became very dull and stupid, lying with his eyes closed"—"complained of tingling like pins and needles"—and other symptoms indicating severe depression.⁴

"The next series of observations were made on a lad aged nine, convalescent from pneumonia, his temperature having become normal ten days previously. We experimented somewhat differently. The boy was kept in bed."⁴

In this case, the symptoms produced by the poison were such as to cause considerable alarm, especially as they did not seem to abate with the discontinuance of the poison. Dr. Ringer states:

"We noticed that his face was flushed and he looked dull, and that there was some tremor when his hand was held out. In the evening the tremors were more marked. At five a. m. the following day he twice vomited. On this day . . . his symptoms were very marked; . . . slight tremor of the lips on speaking, and thick husky voice; breathing rather labored; . . . slight spasmodic movements of the upper limbs; . . . grasping power weaker. . . . These symptoms were at their height at midday, and were so marked, and the pulse and respirations so quick, that we must confess we felt a little relief when the toxic [poisonous] symptoms, which became far more marked than we expected, abated; not that at any time the boy was dangerously ill [!], but, as the symptoms progressed, after discontinuing the medicine, *we did not know how long, and to what degree, they might increase.*"⁵

What a confession! Suppose this lad had died? To what responsibility would the law have held Dr. Ringer? To none?

Poisoning with Gelsemium. "Gelsemium is a powerful paralyzer and respiratory poison . . . In order to test the effects of gelsemium on man, I gave it to six persons on seventeen occasions, in doses sufficient to produce *decided toxic* [poisonous] effects." "To test the effect of gelsemium on the circulation I made thirty-three series of observations *on patients* in whom we induced the full toxic effects." To a little girl, aged nine, who was suffering from chorea, Dr. Ringer, to test the effect on temperature, "gave for five hours an hourly dose" and "produced well-marked constitutional effects." Among the symptoms which Dr. Ringer produced by this poison upon patients who doubtless supposed that they were receiving some remedy for their ailments, were pain, giddiness, dimness of sight, weakness in the legs and double vision. One patient described his pain "as if the crown of the head was being lifted off in two pieces"; "the headache and pain in the eyeballs were often severe and were intensified on moving the eyes." "One patient, on both occasions on which I *experimented on him*, complained spontaneously of a numb pain."⁶

Poisoning with Muscarin. This substance is "the active principle of poisonous fungi." It "affects especially the heart and intestinal canal," producing among other symptoms, "'want of breath, giddiness, fainting, prostration, and stupor.'" In order "to ascertain whether the action of muscarin on man is the same as on animals," Dr. Ringer and his associate "made thirteen experiments on four men. . . . These men, it is well to state, were not in good health; *three were in a delicate anaemic state*, the other had slight fever from some obscure cause. . . ." He satisfied himself that the effects were the same as when animals were used, and that "*in our experiments on man*, muscarin

⁴. Same, p. 589.

⁵. Same, p. 591.

⁶. Same, pp. 497-504.

produced very little effect on the pulse. . . . ” In nine other cases he applied the poison to the eye, causing a wide dilation of the pupil which continued “about twenty-four hours or a little longer.”⁷

A rare poison. Dr. Ringer’s scientific enthusiasm was so great that he could not forbear making experiments upon hospital patients with a poison for which there appears to be *no recognized medical use*, and so rare that he was obliged to have it specially manufactured for the occasion. He says:

“Our experiments led us to conclude that ethyl-atropium paralyzes the motor nerves and the spinal cord, but leaves the sensory nerves unaffected. . . . *In our experiments on man* this drug, given in doses sufficient to produce marked symptoms, neither strengthened nor quickened the heart. . . . In man, a dose of one grain . . . produces decided but transient paralysis, *the patient being unable to stand or walk, and the head dropping rather towards the shoulder or chest, and the upper eyelids drooping.*”⁸

Dr. Ringer suggests no medical employment for this poison, and his experiments upon human beings were apparently for the gratification of his curiosity. Does the reader regard such experiments upon hospital patients as justifiable?

Poisoning with Nitrate of Sodium. “To eighteen adults—fourteen men and four women—we ordered ten grains of pure nitrate of sodium in an ounce of water, and of these, seventeen declared they were unable to take it. . . . One man, a burly, strong fellow, suffering from a little rheumatism only, said that after taking the first dose he ‘felt giddy,’ as if he ‘would go off insensible.’ His lips, face, and hands turned blue, and he had to lie down an hour and a half before he dared move. His heart fluttered, and he suffered from throbbing pains in the head. He was urged to try another dose, but *declined on the ground that he had a wife and family.* . . . The women appear to have suffered more than the men. . . .”⁹

When a report of these experiments with poison upon hospital patients was first printed in the London LANCET, at least one medical journal regarded their publication as a very unwise proceeding, because of its being sure to cause injury to animal vivisection. The editorial columns of the MEDICAL TIMES AND GAZETTE (London) of Nov. 10, 1883 (Vol. 2, pp. 548-550), contain these comments upon the human vivisections just described:

“In publishing, and indeed in instituting, their reckless experiments on the effect of nitrite of sodium on the human subject, Prof. Ringer and Dr. Murrell have made a deplorably false move, which the ever watchful opponents of vivisection will not be slow to profit by. They cannot allege that they were driven to the experiments by the Vivisection Act, for they preface their account of their clinical observations by a description of pathological observations on two cats, who rapidly succumbed to the drug. Nor have they the excuse that the effects of nitrite of sodium on the human subject were unknown, for Dr. Ramskill and Dr. Ralfé have placed on record six cases in which its administration was attended by the most serious consequences—lividity and semi-collapse. It is impossible to read the paper in last week’s LANCET without distress. Of the eighteen adults to whom Drs. Ringer and Murrell administered the drug in ten-grain doses, all but one avowed they would expect to drop down dead if they ever took another dose. One woman fell to the ground, and lay with throbbing head and nausea for three hours; another said it turned her lips quite black and upset her so that she was afraid she would never get over it. The next series of experiments was with five-grain doses. The same results followed in ten out of sixteen cases. One girl vomited for two hours, and thought she was dying. Even in three-grain doses the drug caused unpleasant symptoms in four out of the thirteen patients to whom it was administered. All these observations are recorded with an innocent *naïveté*, as though the

⁷. Same, pp. 489-494.

⁸. Same, p. 534.

⁹. The Lancet, London, Nov. 3, 1883, p. 767.

idea that any one could possibly take exception to them were far from the writers' minds. But whatever credit may be given to Drs. Ringer and Murrell for scientific enthusiasm, it is impossible to acquit them of grave indiscretion. There will be a howl throughout the country if it comes out that officers of a public charity are in the habit of trying such useless and cruel experiments on the patients committed to their care, and the whole profession will be placed in a false position."

One can hardly regard this protest as a very noble one. To speak of public indignation as "*a howl throughout the country*" is perhaps significant of the editor's contempt for the non-scientific mind. But might not Dr. Ringer declare that if he had erred, it had been with the supporting influence of Dr. Keen, Dr. Mitchell and Dr. Morehouse, the three distinguished Americans who, long before, had laid down the rule that in the study of poisons, "in order to appreciate properly any toxic agent, we must follow its effects through a wide range of created existence *from vegetable to man*"?

Experiments with Antimony or Tartar Emetic. "In poisoning by this substance . . . the patient is attacked with pain in the stomach, followed by incessant retching, præcordial cramps and burning heat . . . severe colic. . . . The muscles are sometimes rigid, but generally relaxed; the skin pale, cool and clammy; the pulse feeble. . . . The dose required to produce such symptoms cannot be precisely stated. *It may be but the fraction of a grain which occasions them, and that with a fatal result.*"¹⁰

"We have thus shown," says Dr. Ringer, "that tartar-emetic paralyzes the central nervous system, the motor nerves, the muscles, and destroys sensation, and therefore we are led to infer that probably tartar-emetic is a protoplasmic poison, destroying function in all nitrogenous tissue."¹¹

Although only a "*fraction of a grain*" may prove fatal, yet, to determine the effect of the poison on temperature, Dr. Ringer made this experiment:

*"To a strong young man I gave tartar-emetic in half-grain doses every ten minutes for nearly seven hours, inducing great nausea and vomiting, with profuse perspiration."*¹²

To this "strong young man" was given a poisonous substance to the amount of nearly *twenty-one grains*, although a fatal result may be produced by "the fraction of a grain"! Suppose he had died as the result of this experiment, and the experimenter had been indicted by the grand jury, would the uncertainty of the action of the poison have been an available defense?

Its effect upon the pulse is significant. A medical author tells us:

"The more depressing the operation of the medicine . . . the more frequent and feeble does the pulse become. *In the case of a boy whose brain membranes were exposed*, Dr. Mary Putnam Jacobi observed that in two and a half hours after the administration of a quarter of a grain of tartar emetic, which did not occasion vomiting, the intracranial blood-pressure was diminished and the walls of the arteries relaxed. This peculiarity was not noticed under the action of sedative doses of *quinine*, and was produced only by nauseating doses of tartar emetic."¹³

Poisoning with Alcohol... This substance, in various forms, is so widely used, that for purposes of experimentation it is generally necessary to administer it either to children or to persons wholly unaccustomed to its use. Dr. Ringer says:

¹⁰. The National Dispensatory, by Stillé, Maisch & Caspari, 5th Ed., p. 219; (pub. by Lea Bros. & Co., Phila. & N. Y.)

¹¹. Handbook of Therapeutics, Ringer (above cited), p. 272.

¹². Same, p. 273.

¹³. The National Dispensatory (above cited), p. 219.

"As the result of a great many observations taken in conjunction with Dr. Rickards, every quarter of an hour for several hours, *on persons of all ages*, we found that alcohol, brandy, and wine diminish the body temperature. After moderate doses the fall was slight, . . . *but after poisonous doses* the depression in one instance reached nearly three degrees."¹⁴

What a confession this is! Even upon children wholly unaccustomed to alcohol in any form, as well as upon confirmed inebriates, Dr. Ringer carried on his experiments:

"In a boy *aged ten, who had never in his life before taken alcohol in any form*, I found through a large number of observations a constant and decided reduction of temperature. . . . Dr. Rickards and I gave to an habitual drunkard, making him 'dead drunk,' twelve ounces of good brandy in a single dose."¹⁵

This experiment was not without danger to life. When a large quantity of strong alcoholic drink is taken at a draught, "death from this rapid saturation of the system with alcohol *is by no means rare*. Orfila [the great authority on poisons] mentions an instance in which a man died immediately from the effects of *a large dose of brandy*. . . . Rösch also relates the cases of two children in which quite a small quantity [of gin] *proved fatal*."¹⁶

If any of Dr. Ringer's patients had died and he had been indicted, his own testimony as an expert would have been fatal to him on his trial.

The *Philadelphia Medical Journal*, not long since, reported "some work" done upon human beings by a German experimenter. In one case we are informed that the

"quantity of alcohol was sufficient (with this subject, *who was entirely unaccustomed to the use of alcohol*) to produce a more or less constant condition of mild intoxication during the first few days."¹⁷

Of another subject, the vivisector states that "after the second dose signs of acute alcoholism and a condition approaching collapse appeared." It seems evident that in this case the experiment was carried to a point where human life was in danger.

Poisoning with Digitalis. The New York Medical Record reports a Vienna scientist who experimented upon human beings and animals by immersing them in various poisonous solutions. "A boy of fifteen years remained six hours in a sitz-bath (65°C.) of infusion of half a pound of digitalis in four buckets of water. . . . Pulse fell from 84 to 60, gastric and cerebral symptoms occurred and lasted two days."¹⁸

Poisoning with Conia. This is the alkaloid principle of conium or hemlock, the poison taken by Socrates, its most illustrious victim. "No poison, except prussic acid, excels conia *in the subtlety and rapidity of its operation*."¹⁹ The action of this poison has been more completely illustrated "by Schroff, whose experiments were performed *upon three healthy male adults*." Among symptoms produced, were:

"intense burning in the mouth; . . . the tongue was benumbed and paralyzed . . . giddiness; . . . great impairment of general sensibility, and a sort of discom-

¹⁴. Ringer's Therapeutics (above cited), p. 340.

¹⁵. Same, p. 341.

¹⁶. Therapeutics and Materia Medica, by Alfred Stillé, M. D., 4th ed'n. Philadelphia. Henry C. Lea, publisher. Vol. I, p. 731.

¹⁷. The Phil. Medical Journal, Vol. VIII, Nov. 23, 1901, p. 888.

¹⁸. The Medical Record, New York. Vol. VII, p. 252.

¹⁹. Stillé's Therapeutics and Materia Medica (above cited). Vol. II, p. 334.

fort which lasted during the following day. The sight was confused, the pupils dilated, and surrounding objects seemed to swim; the hearing was dull; . . . the arms were moved with difficulty, and the gait was staggering. . . . The tips of the fingers and the hands were moist, cold, and bluish, the countenance sunken and pale."²⁰

Poisoning with East Indian Hemp. Dr. Lawrie, physician to the Lock Hospital in Glasgow, Scotland, experimented with the poison of cannabis indica—or East Indian hemp—upon some twenty-six unfortunate patients confided to his professional care. Some of the symptoms thus produced were as follows:

"In many [cases], nausea and vomiting were produced; in several there were convulsive paroxysms; frequently the thirst was distressing; the pulse was rendered frequent, weak, and intermittent; . . . the effects of the drug were so far from agreeable that 'the majority of those who took it once *only did so a second time on compulsion.*'"

Dr. Stillé refers to "the wretched and generally ignorant *creatures who formed the subjects of Dr. Lawrie's experiments.*"²¹

These experiments were made in Europe; but Dr. Stillé quotes them in an American work without expression of disapprobation.

A distressing feature of many of these experiments is the fact that the men and women upon whom they are performed were not only ignorant, but under constraint. In this horrible case certain patients in the hospital were not merely poisoned once, but were obliged, "*on compulsion,*" to undergo the convulsive paroxysms and all the other agonizing symptoms a second time.

"Experimenting upon Man." Dr. H. C. Wood, Jr., distinguished by his vivisections of animals, thus refers to human vivisection in connection with nitrite of amyl:

"Fortunately there have not been as yet any cases of human poisoning by the drug, and no one *in experimenting upon man*, that I know of, has as yet carried the effect far enough to produce serious spinal symptoms. . . . Some who have administered the remedy to man *with a little too great boldness, have been sorely frightened.* . . ."²²

"Pushed even to a fatal dose." Is the circulation in the eye affected by various poisons when *pushed to a fatal dose*? Dr. Sydney Ringer tells us as follows:

"Dr. J. H. Arbuckle (*West Riding Lunatic Asylum Reports, Vol. V*) finds that the following substances—Nicotia, Atropia, . . . Aconitia, Hydrate of Chloral, Nitrate of Amyl, Prussic Acid, Strychnia . . . —*pushed even to a fatal dose*, do not in any degree affect the circulation at the fundus of the eye. His observations were made on rabbits, and the results they obtained were, with respect to some of these agents, *confirmed by experiments on man.*"²³

We do not know what this language means unless it be that these poisons "pushed even to a fatal dose" produced phenomena that were "*confirmed by experiments*" upon human beings. It is certain that human vivisectors have given certain poisons up to a point just short of collapse. Dr. Stillé refers to numerous experiments with antimony; some by Mayerhoffer, "who seems to have conducted

²⁰. Stillé's Therapeutics and Materia Medica (above cited), Vol. II, p. 339.

²¹. Same, Vol. I, p. 962.

²². The American Journal of the Medical Sciences (before cited), Vol. 88 (N. S., 62), No. CXXIV (New Series), pp. 359 and 360.

²³. Ringer's Therapeutics (above cited), p. 368.

his experiments carefully,"—producing "*tearing, cutting, and griping pains,*" etc.; some by Ackermann, whose "*observations were made on healthy persons*" and who noticed that "*the rate of the pulse increases with the development of the phenomena of collapse.*"²⁴

"*On Human Beings Before Your Eyes.*" It sometimes happens that scientific statements concerning the effects of a poisonous drug may be illustrated vividly by experiments made before the eyes of the student. In course of a lecture on atropine, delivered by a distinguished lady-physician, before the students of the Woman's College of the New York Infirmary, it would seem that three persons—one a "rather robust woman in good health"—were thus utilized. In summing up what was observed, the lady-lecturer is reported thus:

"In the three cases where we tested the action of atropine *on human beings before your eyes*, we observed a fall of the pulse within ten minutes. . . . In the second case *the subject was a rather robust woman in good health*. The pulse being at 80, one-fiftieth gr. sulph. atrop. was given by subcutaneous injection. In seven minutes the pulse had fallen to 68. In fifteen minutes came a dryness of the throat and slight giddiness. In twenty minutes the pulse had risen to 104. . . . This initial fall of the pulse . . . is too transitory to be of any value therapeutically, but *physiologically it is extremely interesting.*"²⁵

This experimenter is, to-day, one of the most distinguished women in the medical profession. She is a strong advocate of animal vivisection, unrestricted by any law. To her doubtless belongs the distinction of being the first woman in America to have under her control a laboratory for the vivisection of animals.

"*A very healthy Irish boy.*" Under the title: "Sphygmographic Experiments upon a Human Brain, Exposed by an Opening in the Cranium," Dr. Mary Putnam-Jacobi of New York has described a series of experiments made upon "Josie Nolan, aged ten," who, some eighteen months previously, had sustained a fracture of the skull. Dr. Putnam-Jacobi tells us that "the case offered a unique opportunity for the study of conditions affecting inter-cranial pressure"; and the experiments, apparently, consisted in the administration of various powerful drugs, and in noting, by means of the sphygmograph, their effect upon the circulation of blood in the brain. Among the substances used in these most singular experiments upon "a very healthy Irish boy," were twenty grains of quinia, causing apparently a "rapid and complete collapse of cerebral arteries"; three drachms of brandy; five drops of tincture of belladonna, three times a day for four days, and five drops every three hours on the fifth day; twenty grains of bromide of potassium; one sixty-fourth of a grain of atropia injected under the skin, etc. Whether anything of value was learned by the experiments we are not told. Dr. Putnam-Jacobi adds: "To what extent the conclusions, drawn from these observations, are in accordance with existing theories, may be considered on another occasion. On this, we content ourselves with *registering the facts.*" This is the true scientific spirit. Whether the probable escape of this "very healthy Irish boy" from any serious consequences of the experiments justified these investigations upon a child is a question upon which there is perhaps room for difference of opinion.²⁶ It is of interest to note that Dr. Putnam-

²⁴. Stillé's Therapeutics and Materia Medica (above cited), Vol. II, pp. 424-426.

²⁵. The Medical Record, New York (ed. by Dr. Geo. F. Shrady), Vol. 8, pp. 249-250.

²⁶. The Am. Journal of the Medical Sciences, Vol. 102 (N. S., 76), No. CLI (New Series), pp. 103-112.

Jacobi is most vehemently opposed to any governmental supervision or regulation of the vivisection of animals. She says: "We have repudiated the right of the church to control *the procedures* and conclusions of science. Why should we now make over this right to men immersed in business and politics? *Are they any more fitted than priests?*"²⁷ To this scornful inquiry, we oppose another for the consideration of thoughtful men. Should not the State have the right to forbid even the most scientific of its physiologists to experiment thus upon a healthy lad without supervision or control? Are experts in science also experts in morals?

American Soldiers as Material for Experiments. Some years since the scientific world was informed that certain experiments had been made upon American soldiers at the United States Army Hospital by American physicians. The object of their investigations was to study the action upon human beings of two poisonous substances—atropia and morphia. Just so far as the experiments were made upon suffering men, in the hope of giving relief from pain, and at the same time contributing to medical knowledge, there can be nothing to criticize in any way. There is reason, however, to believe that, moved by the zeal which science inspires, in some cases these experimenters went far beyond this. For example, in the report of their investigations appear the following statements:

"We finally entered upon a deliberate course of experiments with the intention of ascertaining in what respect . . . the two drugs in question were antagonistic. . . . *The experiments* which we shall now relate *were most of them made upon soldiers* who were suffering from painful neuralgic diseases, or from some cause entailing pain. In some cases, however, convalescent men were the subjects of our observations, but in no instance were they allowed to know what agents we used, or what effects were expected."²⁸

. . . "The subjects of *our experiments* were men free from fever. Some were suffering from neuralgia, and some were *men in very fair health*, suspected of malingering. . . . The patient was kept recumbent for some time before and during the observation."²⁹

In other words, United States soldiers, some of whom were "in very fair health," some slowly recovering from wounds or disease, were used as research material for experiments with powerful drugs, and were not permitted to know what was being done!

The object of these experiments was the study of two drugs, morphia and atropia, given separately or in combination. One is impressed by the abundance of the human material at the disposal of these investigators; they make not merely one or two experiments, but whole "*series of experiments*":

"In the next *series of experiments* we endeavored to learn whether, when full doses of morphia and atropia were injected together, *the pulse would be modified*. . . . These observations were checked by two other *sets of experiments*. In one we gave a full dose of morphia subcutaneously, and when the pupils were well contracted, or the cerebral influence clearly marked, the atropia was employed. In the other we gave the atropia first, and when it began to show an effect on the pulse we injected a full dose of morphia."³⁰

Very singular experiments, these, to be made by American surgeons upon American soldiers!

²⁷. Vivisection: Hearing before the Senate Committee on the District of Columbia, February 21, 1900; Washington: Government Printing Office; p. 59. .

²⁸. Am. Jour. Med. Sciences, New Series, Vol. 50, No. XCIX (New Series), pp. 69 and 70.

²⁹. Same, p. 71.

³⁰. Same, pp. 72 and 73.

And still other experiments upon the eye and brain:

"Effect on the Eye. It is needless to show anew that atropia dilates and morphia contracts the pupillary aperture. Our observations consisted in using injections of both drugs in succession or together *so as to note how they influenced the iris.* Their antagonism was here very plain. . . . It was noticeable that the accommodation often remained paralyzed for an hour or more after the pupils had been relieved from the effects of the atropia. . . .

It was of course found difficult to regulate the doses so that they should always neutralize one another precisely, even for a brief period, and hence it was common to see . . . a condition of complete antagonism prevailing for a time only, when one or other medicine would dominate the system. . . .

The effects of the two drugs upon the cerebral functions were studied separately, with care, and then in a second series of observations they were used together or in succession."³¹

Here, then, is a typical instance of wholesale experimentation upon human beings. How these experiments will be palliated and excused by the distinguished men who performed them, it is easy to foretell. We shall undoubtedly be told that all this happened some years ago; that the American soldiers, thus used as material, suffered no permanent injury from the experiments to which they were subjected; that the investigators were purely disinterested; that the scientific questions involved were of great interest, and that results might possibly have been obtained which would have proven of great service to medical science. But even if we grant all this, and accord to these gentlemen the purest of personal motives, can we say that, in such defense, they touch the chief point at issue in all this matter of human vivisection? Here were a number of living human beings, who for a brief period, on account of misfortune, were temporarily in their power. *What moral right had these medical gentlemen thus to experiment upon the eye, the pulse, the brain of a single soldier of this Republic,* who was purposely not "allowed to know what agents" were used? That is the only question which is here raised. Even granting the utility, who confers upon anyone the moral right *to test poisons on his fellow-men?* Does any possible utility to science justify it? Are all these experiments made by Ringer, by Arbuckle, by Lawrie and a host of others to be condoned and commended because the motive was the advancement of science? Above all questions of profit or expediency or scientific gain, are there not certain standards of right and wrong by which such experiments as these should be unhesitatingly condemned?

In a pamphlet concerning human vivisection, published a few years since by the American Humane Association, attention was directed to some scientific experiments upon dying children made in a Boston Hospital, and to similar experiments upon lunatics in a Baltimore Insane Asylum. Replying apparently to some newspaper comments on these investigations, there appeared in the columns of the Baltimore SUN, and later, in the *"Journal of the American Medical Association,"* a letter bearing the signature of Dr. W. W. Keen, a Philadelphia surgeon. Therein he refers to

"a pamphlet published by the mis-called 'American Humane Society,' dealing . . . with all the instances which their drag-net had been able to cull from the medical literature of the world. Instead of human vivisection being practiced 'to a considerable extent,' that pamph-

³¹. Same, p. 73.

let could give only two instances of anything resembling experiments on human beings in this country—one in Massachusetts and one in Maryland.”³²

Coming from Dr. Keen, this seems to us a very singular letter. We think the average reader would almost certainly imagine that Dr. W. W. Keen himself was aware of but two instances of anything like human vivisection in the medical annals of our country. But the “medical literature of the world” is vastly richer in details of these most deplorable experiments than is suggested by this letter; and we are sure that upon reflection a scholar of his distinction would be ready to acknowledge it. We are quite confident, for instance, that Dr. Keen now will be able to recollect the foregoing “series of experiments,” made upon American soldiers in the United States Army Hospital. The utility of these human vivisections doubtless he will still maintain; but may we not hope he would also add that no conceivable utility to science can justify such infringement upon human rights? Certainly every one interested in the promulgation of scientific truth must deeply regret that when Dr. Keen thus apparently suggested the extreme infrequency of “anything resembling experiments on human beings in this country,” he should have so completely forgotten the report published in the American Journal of the Medical Sciences, No. xcix, (New Series), p. 67, “On the Antagonism of Atropia and Morphia, Founded upon Observations and Experiments made at the U. S. A. Hospital [etc.]. By S. Weir Mitchell, M. D., William W. Keen, M. D., and George R. Morehouse, M. D.”

In another respect, we believe this communication of Dr. Keen to have been a mistake. Could anybody dream that the “two instances” thus referred to really covered no less than eight experiments upon lunatics, made in one charitable institution, and forty-five experiments upon sick and dying children, performed in a hospital specially consecrated to their care? Because the object of investigation is identical, is it but one experiment—no matter how many children are used? We are quite certain that the public will not accept Dr. Keen’s singular method of enumeration, however scientific it may seem to him.

EXPERIMENTS ON CHILDREN.

At a meeting of the New York Academy of Medicine, held Dec. 1, 1887, a Dr. J. W. Stickler, of Orange, New Jersey, presented a paper upon “Foot-and-Mouth Disease as It Affects Man and Animals,” etc.³³ He had conceived the theory that this epidemic disorder, so fatal to certain animals, had a particular relation to scarlet fever; and that if human beings were inoculated with the virus of this animal disease, it might render them immune to the infection of scarlatina. To test the theory—one, by the way, utterly discredited and forgotten at the present time—Dr. Stickler made a number of “experiments” of the most dangerous kind, upon children entrusted to his professional care. The New York Medical Record of Dec. 10, 1887, prints, as its leading article, this paper in full.

The first victim of this human vivisector was a little boy, about eight years of age, who had never had scarlet fever. First, the lad was inoculated with

³². Letter of Dr. W. W. Keen to Baltimore SUN, and reprinted in Journal of American Medical Association, June 2, 1900, Vol. 34, p. 1432.

³³. Boston Medical and Surgical Journal, Dec. 22, 1887, pp. 607-609.

the virus of foot-and-mouth disease, an ailment very fatal to certain domestic animals. After his recovery from this, he was deliberately exposed to the infection of scarlet fever, one of the most terrible of all diseases to which children are liable. The experimenter shall tell the story in his own words:

"He was then taken to a house in which there was a boy sick with scarlet fever. . . . His parents being poor, the pillow upon which the patient lay had not been exchanged . . . since the beginning of the sickness. *This pillow was placed over the face of the boy who had been inoculated, and held there some time. He was then made to inhale the breath of the patient.*"²⁴

Now, what do American fathers and mothers think of such experiments, if secretly made upon their own children? Because these parents were ignorant and "poor," is the experiment to be condoned? Is it any excuse to tell us that, after all, the lad did not suffer from scarlet fever, although he was forced by strong arms to run the risk of infection? If this child had taken the disease and had died from it, does anyone think that the details of that scientific murder would ever have come to light?

A second victim of this experimenter upon the bodies of human beings was a little girl, only four years old. The vivisector tells us that he inoculated her in the arm—

"with a small quantity of the foot-and-mouth virus. On March 13th her temperature rose to 103 degrees F. Her mouth was sore, . . . she complained of a pricking sensation in her throat. She had slight headache. . . . The same plan of exposure was adopted as in the first case. . . ."²⁵

She, too, escaped contracting scarlet fever, and a third victim to science had a like good fortune. That they did not become infected with the dread disease and die, certainly was not due to any lack of zeal on the part of this vivisector of children.

These were not the only experiments made by Dr. Stickler; he had been making similar experiments for years. Thus he says:

"In the early part of the year 1883 I inoculated twelve persons with virus obtained from horses. . . . *These twelve persons were also inoculated with human scarlatinal blood* after they had been inoculated with equine virus. During the summer of the same year I inoculated thirteen children, all of whom had been, and were at the time of inoculation, exposed to the influence of air contaminated by the breath and exhalations of scarlatinal patients. . . . During the last year I have inoculated two children with the contents of a vesicle produced in the abdomen of a calf by inoculation *with virus derived from a patient who had scarlet fever.*"²⁶

About these horrible facts, therefore, there can be no dispute, for they rest on the confession of the experimenter. A reputable member of the medical profession was able to induce parents—by what representations or promises we know not—to give over their children as the subjects of scientific experiments that might have terminated in death. Little ones, free from any serious ailment, were deliberately inoculated with the virus of a horrible disorder, peculiar to certain domestic animals. After recovery from its effects, they were subjected to still another phase of human vivisection by being carefully exposed—

²⁴. New York Medical Record, Dec. 10, 1887, p. 728.

²⁵. New York Medical Record, Dec. 10, 1887, p. 728.

²⁶. New York Medical Record, Dec. 10, 1887, pp. 731 and 732.

or forced to expose themselves—to the infection of one of the worst and most fatal of all the diseases that afflict and endanger the life of a child. We are told that none of the victims of these experiments contracted the disorder. May it not be possible that all the facts have not been disclosed?

The paper describing these experiments upon little children was read before a regular meeting of the New York Academy of Medicine, Dec. 1, 1887, and was received with expressions of great interest. In the discussion that followed, some of the leading physicians of New York City took part. Dr. Andrew H. Smith inquired whether it was an easy matter to procure virus so that the supply could be kept up in case the method came into general requisition. Dr. J. Lewis Smith expressed doubts of the expediency of such investigations and pointed out that “by inoculating with the bovine scarlatinous virus, we might produce severe and fatal epidemics.”

Professor Law, the well-known veterinarian of Cornell University, speaking as a scientist, expressed his scepticism regarding the method of experimentation, and pointed out that 90,000 deaths from scarlatina had occurred in Great Britain during the preceding five years. He strongly urged that investigations of this kind “should be carried on *on the other side of the Atlantic*, as it would be a very serious matter if that affection should be introduced in this way among American cattle, and he had no doubt that there would be a *general outcry among the cattlemen* if it were known that experiments were being made with the virus of the disease in this country.” No suggestion was made of any “outcry” among the fathers and mothers of American children liable to infection-experiments of this kind; it was the American *cattlemen* whose protests were feared. Not a word of criticism made upon these experiments *from the standpoint of their immorality* appears in the report.

A full summary of these child-vivisections was printed by THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION³⁷ of Chicago; THE MEDICAL NEWS³⁸ of Philadelphia, the BOSTON MEDICAL AND SURGICAL JOURNAL³⁹, and both THE NEW YORK MEDICAL JOURNAL⁴⁰ and the MEDICAL RECORD⁴¹ of New York. With words of remonstrance or condemnation? Not one.

Even yet, we are not without hope for better things. We heartily wish that the day may come when, in utterances that can not be misunderstood, the medical press of this country shall expend its vigor of denunciation, not upon those who bring infamy to the light of day, but upon the wretched experimenters upon human victims, whose deeds bring scandal upon science and disgrace upon the practice of medicine. No doubt it will require some degree of moral courage for the conductors of an American periodical to take this stand; probably it will alienate the support of a few well-known vivisectioners. But any such loss, we are sure, will be more than compensated by an enhanced self-respect and an increased public confidence and esteem.

37. Dec. 24, 1887, pp. 827-829.

38. Dec. 10, 1887, pp. 688-690.

39. Dec. 22, 1887, pp. 607-609.

40. Jan. 14, 1888, pp. 49 and 50.

41. Dec. 10, 1887, pp. 745-746.

THE VIVISECTION OF HOSPITAL PATIENTS.

The *British Medical Journal* of July 7, 1900, page 60, says:

"Gross abuses in any profession should not be hushed up, but should rather be made public as freely as possible, so as to rouse public opinion against them and thus render their repetition or spread impossible. And therefore we have reason to thank the Social-Democrat newspaper Vorwärts for dragging into light the 'experiments' made by Dr. Stubell [Strubell] (first assistant in Professor Stinzing's clinic at Jena) on patients suffering from diabetes insipidus, and published by him in the Archiv für klinische Medizin [Deutsches Archiv für Klinische Medizin, Dec. 22, 1898]. Dr. Stubell [Strubell] there relates how he kept one of his patients in an attic with barred windows, the door of which he locked, putting the key in his pocket; how the patient, who was allowed only a small amount of liquid, in the torturing thirst which is a symptom of the disease, drank his washing water, so that he was then no longer allowed to wash himself; how one night, in his agony, . . . ; how another night he wrenched off one of his window bars, climbed over the roof to another small window, through which he crept, thus finding his way to a water-tap, where he was captured and brought back to his prison. Dr. Stubell [Strubell] calmly states that his patient must have 'endured frightful tortures' one night, and gives the following account of his condition in the morning: 'The patient was quite collapsed, his face seemed dried up, eyes and cheeks deeply sunken, pulse almost imperceptible, a great deal of pain, the joints stiff.' The whole medical profession must reprobate cruelties such as these perpetrated in the name of science.")

What an inspiration toward righteousness are words like these coming from such a source! How almost infinite is the contrast between this honest outspoken condemnation of "*cruelties*," and the paltering apologies and excuses which seem to find principal expression on this side of the ocean.

One of the most horrible cases of human vivisection in this country, and one, too, which was terminated by the death of the victim, occurred in one of the hospitals of Cincinnati, Ohio.

The experiments were performed by a physician who, for many years, was connected with one of the leading medical schools of Philadelphia; a man who is widely known throughout the United States. Under the significant title: "*Experimental Investigations into the Functions of the Human Brain*," the experimenter published his story to the world, apparently assured that its scientific interest would outweigh whatever objections from a moral standpoint might be urged. The case is so excellent an illustration of scientific degeneracy that it deserves to be told somewhat in detail.

To an institution bearing the comforting name of the GOOD SAMARITAN HOSPITAL there came one day a poor woman by the name of Mary Rafferty. A domestic servant by occupation, strong neither in mind nor body, she had sustained an accident which made her good "material" for a dangerous experiment. When a child, she had fallen into the fire and severely burned her scalp; and a few months before, in the scar-tissue, an eroding ulcer had appeared which gradually had laid bare the brain-substance. Apparently any cure of her trouble was seen at once to be hopeless; but she presented a chance for making scientific experiments of a kind such as had hitherto been made only upon dumb animals. We are twice told by the experimenter that she was "rather feeble-minded," and we may thus judge the value of her "consent" to experimentation

—if, indeed, her consent was ever asked. She did not complain of headache or vertigo; she was “cheerful in manner,” and smiled “easily and frequently,” with child-like confidence and perfect faith in the goodness of those about her.

“It is obvious,” says the experimenter at the outset, “that it is exceedingly desirable to ascertain how far the results of experiment on the brain of animals may be employed to elucidate the functions of the human brain.” He commenced his vivisections, therefore, upon Mary Rafferty by inserting into the substance of the brain, thus exposed by disease, insulated needle electrodes of various lengths, and connecting them with a battery. Exactly what would be the result, nobody knew; but “it was believed that diffusion of the current could be as restricted as in the experiments of Fritsch and Hitzig and Ferrier,” made upon animals. The first two experiments were cautiously made and evoked the usual phenomena; “the arm was thrown out, the fingers extended, and the leg was projected forward,” but no pain was felt “in the brain-substance proper.” Gathering courage, the experimenter went a little farther. Peculiar sensations began to be felt by the victim. Let the vivisector tell the story:

“The needle was now withdrawn from the left lobe and passed in the same way into the [brain] substance of the right. . . . When the needle entered the brain-substance, *she complained of acute pain* in the neck. In order to develop *more decided reactions*, the strength of the current was increased by drawing out the wooden cylinder one inch. When communication was made with the needles, *her countenance exhibited great distress*, and she began to cry. Very soon the left hand was extended as if in the act of taking hold of some object in front of her; the arm presently was agitated with clonic spasms; her eyes became fixed, with pupils widely dilated; lips were blue, and she frothed at the mouth; her breathing became stertorous; she lost consciousness, and was violently convulsed on the left side. The convulsion lasted five minutes, and was succeeded by coma. She returned to consciousness in twenty minutes from the beginning of the attack.”⁴²

What had happened? Simply this: the distinguished scientist had caused in a human being precisely the same “violent epileptiform convulsion” which Fritsch and Hitzig and Ferrier had produced in the lower animals, and by the same method of experimentation. Dr. Ferrier himself, in some observations upon these human vivisections, referred to the “epileptiform convulsions” as a complete parallel to his own results upon lower animals.

Perhaps some unscientific person may feel that the experimenting should have ceased at this point, and that the poor girl should have been allowed to go home and die in peace. But is this other than mere sentiment? The president of Harvard University once declared that “to interfere with or retard the progress of medical discovery is an inhuman thing”; yet we cannot believe he would have approved the continuance of these vivisections, even though in accord with that sentiment. Again, this experiment upon the poor creature’s brain was performed; the needles were passed into the brain; the same phenomena were evoked, “except [that] the strength of the current was not sufficient to produce the epileptiform attack”; only “muscular contractions” and “pain and tingling in the extremities” seem to have been caused. But not yet had she served the demands of science. Of the next experiment performed, the vivisector himself shall tell us the result:

⁴². American Jour. Med. Sciences, Vol. 93 (N. S., 67), No. CXXXIV, New Series, pp. 310-311.

"Two days subsequent to observation 4, Mary was brought down into the electrical room with the intention to subject the posterior lobes to galvanic excitation. The proposed *experiment* was abandoned. She was pale and depressed; her lips were blue; and she had evident difficulty in locomotion. She complained greatly of numbness and tingling in the right arm, shoulder, and foot. . . . On further examination there was found to be decided *paresis* and rigidity of the muscles of the right side of the body. . . . She became very pale, her eyes closed, and she was about to pass into unconsciousness, when we placed her in the recumbent posture, and Dr. Steeley gave her, at my request, chloroform by inhalation."⁴³

"The day after . . . *Mary was decidedly worse*. She remained in bed, was stupid and incoherent. In the evening she had a convulsive seizure, lasting about five minutes, confined to the right side. After this attack she lapsed into profound unconsciousness, and was found to be completely paralyzed on the right side. . . . No movements of any kind could be excited by strong irritation of the skin of the paralyzed side. . . . The pupils were dilated and motionless."⁴⁴

How soon afterward did she die?

The report does not tell us. We next learn of the "autopsy." The brain was taken out, and the track of the needles traced, one having penetrated an inch and a half through the brain-substance, its course being marked "by some diffiuent cerebral matter."⁴⁵

No coroner was called upon to make an investigation. Officially speaking, she was reported to have died of the disease from which she had been so long suffering.

And yet criticism was not wanting. In sundry periodicals it was hinted that Science had gone a little too far. The experimenter himself admitted this in a letter to the *British Medical Journal*.⁴⁶ Of course he made excuses. In the first place he declared that "the patient was hopelessly diseased." Secondly, "the patient consented to have the experiments made." But twice he had told us that she was "*rather feeble-minded*," and, of course, she was in no condition to comprehend the dangers of the experiment. Finally, he informs us that death was really due to the progress of the disease. We expect all this. No victim of such research will ever die from any experiment, but from some other cause. Yet the experimenter frankly admitted that his experiments had been injurious. He had believed, he said afterwards, that small needles could be thus "introduced without injury into the cerebral substance. *I now know that I was mistaken*. To repeat such experiments with the knowledge we now have that injury will be done by them . . . *would be in the highest degree criminal*." But he still insists that in his own case they did not cause the fatal result. We may not agree with all of his defence, but we are in hearty accord with one point. That such experiments not only "would be"—but were—"in the highest degree criminal," is a conclusion about which there will be no divergence of opinion among right-thinking men.

Dr. Ferrier, whose experiments upon monkeys had led indirectly to these human vivisections, declared in regard to the experiments on Mary Rafferty, that "*whatever opinion may be entertained as to their propriety, they furnish facts of great interest in relation to the physiology of the brain*." He speaks of "the

⁴³. Same, p. 311.

⁴⁴. Same, p. 311.

⁴⁵. Same, p. 312.

⁴⁶. *British Medical Journal*, May 30, 1874, p. 727.

depth of penetration of the needles"; refers to "the occurrence of epileptic convulsions from general diffusion of the irritation when the currents were intensified," and finally distinctly affirmed that the "*epileptic convulsions and ultimate paralysis* are clearly accounted for by the inflammatory changes, at first causing irritation . . ." ⁴⁷ In experiments upon animals, Dr. Ferrier tells us, the same effects have been observed. It seems apparent from the tenor of his communication that Dr. Ferrier, who first made experiments of this kind on the brains of monkeys, had little doubt as to the cause of Mary Rafferty's death.

Who made these human vivisections? Was it some young surgeon, just beginning his career? Was it some unknown member of the medical profession, whose obscurity renders him the safe mark of general obloquy? No. These experiments upon a poor hospital patient were made by one of the most eminent physicians in the United States. Among the men composing the faculty of one of the best-known medical colleges in the United States, his name, less than half a dozen years ago, stood first on the list.

"*Demoralizing and degrading experiment.*" Some years since there appeared in the editorial columns of The New York Medical Record (edited by Dr. George F. Shrady, A. M.), a unique and vigorous condemnation of a certain form of human experimentation. One or two sentences only can here be quoted:

"Not satisfied with this, a few progressive ones are going still further . . . and are selecting women for the baser purposes of *demoralizing and degrading experiment*. * * *

"There are some things, such as this, which even science cannot divest of its immoral aspects. * * * Are we not presuming a little too much for science, and are we not drifting into an *indifference to ordinary decency*, which, as a learned and dignified profession, we should take every pains to prevent?" ⁴⁸

Regarding Human Vivisection, what is the attitude of the eminent surgeons and physicians, who keep before the public eye, of the editors of the leading medical journals, the representatives of medical opinion? Are deeds such as have been herein described regarded as laudable, if performed only upon the ignorant and poor, in the name of Science?

No such creed is openly professed. Is it held in secret? Take the representative medical journals in the United States. No one can attack or criticize the cruelties pertaining to animal vivisection without finding them, one and all, eager to maintain the right of the vivisector to carry on his experiments exactly as he may wish. How do they stand toward the men who make experiments upon human beings? Possibly we may judge of their real attitude by what they have *not* done. During the past quarter of a century, has a single human vivisector been mentioned by name with condemnation and rebuke in the editorial columns of any medical journal of the United States that upholds the unlimited vivisection of animals? For any such condemnation we have searched in vain.

Can we imagine that the editors of medical journals throughout the United States would be so absolutely indifferent to the atrocities of human vivisection—printed and described in their own columns—unless, in reality, such deeds are regarded as excusable, if they are done "*in the name of Science*"? We know that this is the ground upon which they justify or defend the worst excesses of

⁴⁷. The London Medical Record, May 13, 1874; vol. 2, pp. 285 and 286.

⁴⁸. The Medical Record of New York, Vol. 7, pp. 469, 470.

animal vivisection. Does it not also seem to them to apply equally to the vivisection of babes?

Let us have light on this matter. It was in the *Bulletin of The Johns Hopkins Hospital* of July, 1897, p. 137, that a physician, connected with Johns Hopkins University, gave an account of his experiments upon insane patients, made, as he tells us, "for the purpose of ascertaining the toxicity" (or poisonous qualities) of a certain drug. Will any professor of Johns Hopkins University, now tell us when, and where, he ever denounced by name that experimenter upon defenceless men and women? Can he mention a single experimenter upon women and children whom he has ever denounced, or ever reproved—by name? Take the editors of the medical periodicals to which we have just referred. During the past twenty years, has there appeared in the columns of these journals, a single sentence wherein any one of the vivisectors of defenceless women and little children has been by name specifically condemned? It was the *Journal of the American Medical Association* of Chicago, which, in its issue of Aug. 4, 1900 (p. 271), published the statement of a New York surgeon, who confessed that in order "to test the efficiency of" a newly-imported instrument, he had made two poor women, suffering from internal disease, undergo a most serious surgical operation, although "*they were strictly inoperable cases, from the standpoint of cure.*" Can the *Journal* now point to a single sentence in its columns wherein a human vivisector like this has been denounced by name? It was the *Medical Record* of New York which, in its issue of Sept. 10, 1892 (p. 297), permitted an American vivisector of children to describe the inoculation of innocent little girls with the virus of the most awful disease known to humanity. Will the editor of the *Medical Record* point out any denunciation of this experimenter, or of any other vivisector of his kind, which has appeared in its editorial columns? It was the *Medical News* of Philadelphia which in its issue of April 1, 1899 (Vol. 74, p. 388), published an article referring to the "inoculations of cancer from man to man," "*done both intentionally and successfully*" by an experimenter who "*is discreetly silent with regard to details.*" Will the editor of the *Medical News* quote some editorial expression of its "repulsion" concerning this criminal, and any word of denunciation of any other human vivisector which ever appeared in its editorial columns? It was the *Boston Medical and Surgical Journal* which, in its issues of Aug. 6, 1896 (Vol. 135, pp. 132-136), and Aug. 13, 1896 (Vol. 135, pp. 156-160), gave to the world an account of "*some experimental work,*" made upon sick and dying children in a Boston hospital. Will the editor of that periodical point us to any passage in its columns wherein this vivisector of infants was condemned?

Among all of these journals, is there a single one that even now dares to come out in clear and outspoken condemnation of the men who have performed such experiments as we have named? We know what to expect. Some vague and meaningless protest against "improper methods of scientific investigation," some appeal for prudence in the publication of scientific experiments, some attempts at exculpation or defence—and bitter denunciation of this exposure—these, of course, will appear. But is it not possible to hope for more than this? If it must be admitted that not a single human vivisector has been condemned by the journals we have mentioned, may not some reparation be made by the

emphasis of their future utterances? At the beginning of a new century, we are confronted by great problems. One of these is human vivisection in the name of scientific research. We appeal, then, to the medical press of America to break that unfortunate silence which seems to justify or, at least, to condone it. Now and henceforth, will it not join us in condemning every such vivisector of little children, every such experimenter upon human beings? We make this appeal to it, in the name of Justice and Humanity, and for the sake of millions yet unborn.

What is the remedy for Human Vivisection?

It has been practiced by men of national reputation. It is condoned, defended, apologized for by exponents of the new creed—that Science brooks no interference with her methods, and is supreme in her own sphere. There is but one remedy. It is legislation. An awakened public sentiment must demand that experiments like these, upon the poor, the defenceless, the ignorant and the weak, shall no longer be permitted but shall constitute a crime in every American commonwealth. To this end we invite the coöperation of all into whose hands this pamphlet may come.

S. R. TABER,

Secretary of Vivisection Reform Society.

FORM OF BEQUEST.

I hereby give and bequeath the sum of _____ Dollars
to the VIVISECTION REFORM SOCIETY, a corporation organized and
existing under the laws of the United States, for its corporate uses and
purposes.